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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/811,236	03/16/2001	William Michael Zintel	MS1-740US	3127

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EXAMINER

PRIETO, BEATRIZ

ART UNIT	PAPER NUMBER
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2142

DATE MAILED: 06/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/811,236

Applicant(s)

ZINTEL ET AL.

Examiner

Prieto Beatriz

Art Unit

2142

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 31 March 2005.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 25-27, 30-34, 36-42, 44-48, 50-53, 58, 59 and 63-72 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☐ Claim(s) 25-27, 30-34, 36-42, 44-48, 50-53, 58, 59 and 63-64, 67-72 is/are rejected.  
7) ☒ Claim(s) 65 and 66 is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

1. This communication is in response to Request for Continued Prosecution/Amendment filed 03/31/05, claims 25, 32, 33, 38, 42, 48, 59 and claims 63-72 have been added, claims 1-24 were previously canceled and claims 28-29, 35, 43, 49, 54-57, 60-62, were currently canceled, thereby, claims 25-27, 30-34, 36-42, 44-48, 50-53, 58-59 and 63-72 remain pending.

2. Claims as amended have been given the broadest reasonable interpretation in light of the specification. For example, support for the “identifying..., determining..., and generating ...”, limitations of claim 25, may be found at least on page 16, lines 7-10, page 18, lines 13-17 and page 17-25 of applicant’s disclosure.

3. Examiner respectfully presents the following suggestions, which may accelerate the prosecution of instant application, for applicant’s consideration.

*the controlled device configured at least with one of: networking capabilities according to Universal Plug and Play standards and transport message mechanism according to General Event Notification Architecture (GENA) standards and Simple Service Discovery protocol standards; or*

*generating an event message by which multiple destinations are notified when the service state table changes; or*

*generating an notification event using by which multiple destinations are notified in response to changes in the service state table; or*

4. Claims 65-66 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

5. Quotation of the appropriate paragraphs of the 35 U.S.C. 102 that form the basis for the rejection under this section made be found in previous office action, incorporated hereby by reference.

6. Claims 25-27, 30-34, 36-42, 44-48, 49-53, 58-59, and 63-72 are rejected under 35 U.S.C. 102(e) as being anticipated by Humpleman et. al. U.S. Patent No. 6,546,419 B1 (referred to as Humpleman hereafter).

Regarding claim 25, a method stored on a computer-readable recording medium, the method for accessing a “user-selectable” service on a controlled device (14) coupled to a “ad hoc” network (10) (services: col 4/line 64-col 5/line 4, 57-59, network: col 4/lines 32-40) comprising:

- creating a definition describing the controlled device, the definition using XML (definition: col 12/lines 35-45, XML: col 13/lines 9-17, definition: col 12/lines 11-45);

- storing the definition on computer-readable storage medium (col 5/lines 24-32);

- identifying a set of “states” data in a “service state” table stored on the controlled device in accordance with the definition of the service (attributes and capability data of the device: col 9/lines 20-26, col 9/line 52-col 10/line 8, tables on 1 & 2 and Figs. 10 & 11);

- determining a set of commands to control and access the service, said command in accordance with the definition of the service (commands: col 14/lines 6-10, 48-60, command set: col 5/lines 40-45 and command library: col 7/lines 24-30), and to update said states (col 9/lines 26-33);

- generating a “service control protocol” set of rules definition to support interaction with the services on the controlled device, said service control protocol including network “messages” calls having content data and a sequence (e.g. action/request and response) for interacting with said service thereon (method call/message: col 13/lines 9-17, set of rules col 13/lines 46-56, protocol: XML Remote Procedure Call (RPC) or XMLRPC messages, col 13/lines 46-56).

Regarding claim 26, said storing on the controlled device (Humbleman: col 15/line 39-49).

Regarding claim 27, said storing remotely from the controlled device (Humbleman: stored on another device, Hub or library searchable over the Internet see col 16/lines 39-58, or distributed, i.e. remotely from device see col 17/lines 20-25).

(Canceled 28-29)

Regarding claim 30, said storing on the controlled device (Humbleman: col 15/line 39-49) and storing remotely from the controlled device (Humbleman: stored on another device, Hub or library searchable over the Internet see col 16/lines 39-58, or distributed, i.e. remotely from device see col 17/lines 20-25).

Regarding claim 31, further comprising making both the device portion and the service portion available at runtime over a network (Humbleman: interface definition including device description see col 21/lines

47-62 and service description: col 13/lines 46-56, where said definition is available at runtime: col 19/lines 51-58).

Regarding claim 32,

storing a definition (labeled dynamically discoverable) of the computing device (col 5/lines 24-32 and col 12/lines 11-45), the definition includes a set of instruction defining a communication protocol including messages that to access services (Humbleman: INTERFACE.XML having definitions XCE & INTERFACE.DTD which define the messages (series) for communicating (calls to, i.e. accessing) with said services, col 13/lines 1-8, 46-56, the XML based definitions including XML protocol based message call definitions for sending and receiving messages col 15, lines 8-27, calls to control or access the services on the controlled device: col 14/lines 48-62); and

making the definition available: to other computing devices on the network (Humbleman: available for other devices: col 15/lines 33-38, accessible library: col 20/lines 31-45).

Regarding claim 33, containing limitations discussed on claim 25, same rationale of rejection is applicable, and further including,

a first set of XML-based code strings that define attributes of the device (Humbleman: XML based definition includes information that defines capabilities and attributes see col 21/lines 46-62); and

a second set of XML-based code string that define the service(s) exposed by the device (Humbleman: definition describes the object/methods supported by the service applications residing on the device see col 12/lines 45-54), wherein the second set includes data to create messages (called "service specific data messages") (Humbleman: CALL.DTD which describes the interaction (message exchange), col 13/Lines 9-17, the services available, wherein the CALL.DTD definition includes a set of rules for generating method call or function call message (i.e. protocol), such as XML Remote Procedure Call (RPC) or XMLRPC messages col 13/lines 46-56);

said second set of XML-base code strings that define the services (capabilities) exposed by the controlled device further comprise: an element (called "message type") (col 10/lines 44-48 a XMLRPC message has a method name, parameters name and type: col 16/lines 18-19);

an address element (called "control URL") (action/responses messages col 15/lines 6-8);

an event element (called "Subscription URL") (occurrence of an action col 18/lines 51-55);

an element that includes an arrangement (called "contract"), e.g. a communication messaging protocol to define the interaction with the services provided "exposed" by the device said calls (CALL.DTD which describes the interaction (message exchange), col 13/Lines 9-17, the services

available, wherein the CALL.DTD definition includes a rule set for generating method call or function call message, such as XML Remote Procedure Call (RPC) or XMLRPC messages col 13/lines 46-56).

Regarding claim 34, wherein the first set of XML-based code strings contain a reference to the second set of XML-based code strings (Humbleman: reference to application services col 15/lines 2-8).

(Canceled 35).

Regarding claim 36, wherein the first set of XML-based code strings is stored on a first computer readable medium and the second set of XML-based code strings are stored on a second computer readable medium separate from the first computer-readable medium (Humbleman: subset of definition of the services are used by the controlling device to control the controlled device: col 12/lines 46-54, parts of the controlled device definition interface are request from the library: col 17/line 56-col 18/line 3).

Regarding claim 37, wherein is the second set of XML-based code strings that define the services exposed by the device comprises URL(s) to a location(s) that host description(s) of the services) (Humbleman: description interface comprises URLs see col 14/lines 63-col 15/line 8, URL to portion of the description definition see col 21/lines 9-22, description definition includes services descriptions see col 13/lines 46-56).

Regarding claim 38, comprising limitation discussed on claim 25, same rationale of rejection is applicable, further limitations include,

a device description written in XML-based language to describe a controlled device (Humbleman: document definition XML based of the device see col 12/lines 35-54); and

a service description written in an XML-based Language to describe a service supported by the controlled device (Humbleman: document definition describes the object and methods supported by the service that the device provides see col 12/lines 46-54);

the service description definition describes how to access a service at the controlled device (Humbleman: the INTERFACE-A.XML is used to determine how to communicate with a device for service by defining the message format for the service, col 13/line 1-8, and describing the services available col 13/lines 46-56)

Regarding claim 39, wherein the device description is stored at a first location and the service description is stored at a second location remote from the first location, but accessible via a network (Humbleman: library accessible over the network see col 16/lines 38-58, device service description stored on controlled device see col 15/lines 39-49, part of the description definition may be available/accessible at the library see col 17/lines 56-col 8/line 3).

Regarding claim 40, wherein the device description contains a reference to the service description (Humbleman: hierarchical device interface definition including device description i.e. device attributes and capabilities and further to control interface which contain references to device interface services such as video services sink for a specified control interface see col 21/lines 47-col 22/lines 39).

Regarding claim 41, wherein the device description contains one other device description nested therein (Humbleman: description definition is a hierarchical device interface definition including control interface description definition that further includes, i.e. "nested" description definitions see col 21/lines 47-col 23/line 3).

Regarding claim 42, a description in XML language that describes how to remotely operate the computing device (Humbleman: definition described the controlled device: col 12/lines 35-54, said definition is used to remotely control, i.e. send command to the device see col 14/lines 20-42);

description describes the attributes and the services provided by the controlled device (description of the service capabilities and attributes (Humbleman: col 12/lines 35-45, col 13/lines 1-17, attributes and capabilities together col 10/lines 17-18, 50-55 as an application interface in XML language); and

description means, responsive to a description request received by the computing device on a network, for sending a description message based on the description that defines interaction via data messaging with the computing device over the network (Humbleman: create commands for sending to controlled device over the network see col 14/lines 35-62, sending control and command data to controlled device based on description definition e.g. capabilities see col 27/lines 63-col 28/line 12).

(Canceled 43)

Regarding claim 44, wherein the device description and the service description are located remotely from one another and separated by a network (Humbleman: part of the definition interface may be retrieved from the library see col 17/lines 56-col 18/line 3 which is located over the Internet see col 16/lines 38-58

or distributed see col 17/lines 15-25, service (e.g. functions) description fields that define services exposed by the controlled device located remotely from the controlled device but accessible over the network see col 20/lines 49-64).

Regarding claim 45, this claim is substantially the same as method claim 31 discussed above, same rationale of rejection is applicable.

Regarding claim 46, wherein the description comprise multiple descriptions that describe how to remotely operating multiple computing devices logically contained within the computing device (Humbleman: remotely controlling controlled devices using description software stored within see col 15/lines 34-49, description provides the capabilities and commands for communicating/controlling controlled device: col 14/lines 6-60).

Regarding claim 47, wherein the description is a first description written in an XML-based language that describes how to remotely operate another computing device, the second description being nested within the first description (Humbleman: definition including the capabilities of the controlled device used to remotely operate another device see col 14/lines 6-60, hierarchical structure definition, e.g. where service definition includes sub-descriptions, i.e. "nested" description e.g. utilities for controlling device specific interfaces and specific capabilities of the device see col 21/lines 47-col 23/lines 3).

Regarding claim 48, a computing device comprising:

- a memory (Humbleman: each device has definition stored locally therein see col 15/lines 44-49, blocks 52 and 58 of Fig. 15, data base, i.e. storage or memory device definition device XML based see col 12/lines 35-54);

- self-describing data stored in the memory and written in an XML-based language the self-describing data describing how to operate the computing device (Humbleman: data base stored object and method describe the methods and object of the device, i.e. "self describing data" see col 12/lines 35-54); and

- a processor coupled to the memory to submit the self-describing data to remote entity on a network (Humbleman: data retrievable, i.e. submitted by another device over the network see col 14/line 62-col 15/line 6, i.e. corresponding hardware resource for performing this retrieval, i.e. processor coupled to memory, and further transferring the definition document "self-describing data" between controlled device and controller device over the network see col 14 lines 20-34).



(Canceled 49)

Regarding claim 50, wherein the self-describing data comprises device data to describe attributes of the computing a device (Humpleman: device attributes: col 21/lines; 46-62) and a universal resource locator(s) to a service(s) exposed by the computing device (Humpleman: URI see col 15/lines 2-8).

Regarding claim 51, multiple controlled devices configured to dynamically self-bootstrap onto the network (Humpleman: devices self configure at runtime with native functionalities, i.e. "self bootstrap" see col 16/lines 24-38),

individual controlled devices comprising a device description to describe attributes of the computing device and a service description to describe a service(s) exposed by the computing device (Humpleman: each device having definition stored therein for being controlled see col 15/lines 39-49, definition including description of the attributed of the controlled device see col 21/lines 47-62, and a description of the services or capabilities provided by the device see col 14/line 14-10 and col 13/lines 46-56, description of the object, methods and parameters supported see col 15/lines 39-49);

the device and service descriptions being written in an XML-based language (Humpleman: definition is an XML based document see col 12/lines 35-54); and

defining a messaging protocol (Humpleman: an XML messaging communication protocol for sending/receiving messages over the network col 15/lines 8-27, including a call definition includes a rule set for generating method call or function call message, e.g. XML Remote Procedure Call (RPC) or XMLRPC messages col 13/lines 46-56);

one or more user control points to initiate communication with the controlled devices over the network (Humpleman: definition describes the messages to be used to communicate with controlled device see col 13/lines 1-6, using a browser, i.e. control point, see col 11/line 61-col 12/line 5, definition used to communicate or send control commands to said device see col 14/lines 6-10, 20-27, 38-42, 55-60).

Regarding claim 52, wherein the device description and the service description for an associated controlled device are both a stored on the associated controlled device (Humpleman: definition is resident at controlled device see col 15/line 39-49, definition include attributes of the device see col 21/lines 46-62 and the service the devices supports see col 12/lines 46 54).

Regarding claim 53, this claim comprises the architecture comprising limitation(s) substantially the same as those discussed on claim 39, same rationale of rejection is applicable.

(Canceled 54-57)

Regarding claims 58-59, this claim comprises substantially the same limitation discussed on claim 26, such the message comprising content and sequence, further the “contract definition”, was discussed on claim 33, where the set of rules for generating method calls, equally apply to what is called here a “protocol” and “messaging pattern”, having source and sink messages, would also equally applied to “delivery characteristic” and “payload delivered”, further describing messages containing data to/from the controlled or controlling device name (now called “endpoint”), same rationale of rejection is applicable.

(Canceled 60-62).

Regarding claim 63, the service control protocol comprises different definition items, having different labels (“wire protocol”, “sequence” and “content”) (col 12/lines 35-45, col 13/lines 9-17).

Regarding claim 64, manufacturer, model name, model description (col 10/lines 24-49).

Regarding claim 67, a definition or description includes a service, substantially discussed above, e.g. claim 42.

Regarding claim 68, this claim comprises limitations substantially as those discussed on claim 33, same rationale of rejection is applicable.

Regarding claims 69-72, the service control definition includes comprising an XML document (col 12/lines 46-54) comprising strings (i.e. sequence of characters) (col 9/lines 44-57 and col 10/lines 47-49), including attribute and/or capabilities tables “state table” having values “variable” representing the conditions or characteristics, i.e. “state” of the controlled device (col 9/lines 20-26, col 9/line 52-col 10/line 8, tables on 1 & 2 and Figs. 10 & 11), “root” name element (col 16/lines 44-50), action list element comprising the name of an “action” (control list action in said XML document: col 13/lines 57-col 14/line 5).

***Response to arguments***

7. Regarding claims 25-34, 36-55, and 57-62 are rejected under 102 as being anticipated by Humpleman, it is argued the reference does not teach claim limitation as amended. Specifically, *generating a protocol according to the definition to interact with the service, the protocol comprising messages having a content and sequence*, because according to applicant's interpretation of the reference, does not describe what is meant by message format, differing from having a content and sequence.

In response to the above-mentioned argument, applicant's interpretation of the prior art has been considered. However, Humpleman teaches generating commands for service interpreted by the controlled device, performing the requested service based on the method call information including a method name and parameters for the device functions (col 18/lines 3-17), thereby, the generated commands in the Humpleman have "content". The term "sequence" has been interpreted in light of the specification, and can read on command/response sequencing (p. 30, lines 17-28). In the Humpleman reference, the commands further contain a sequence for instance in the command requires a response or return values (i.e. a sequence) (col 18/lines 18-28).

8. Applicant's arguments filed 03/31/05 have been fully considered but not found persuasive.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Prieto, B. whose telephone number is (571) 272-3902. The Examiner can normally be reached on Monday-Friday from 6:00 to 3:30 p.m. If attempts to reach the examiner by telephone are unsuccessful, the Examiner's Supervisor, Rupal Dharia can be reached on (571) 272-3880. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3800/4700.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system, status information for published application may be obtained from either Private or Public PAIR, for unpublished application Private PAIR only (see <http://pair-direct.uspto.gov> or the Electronic Business Center at 866-217-9197 (toll-free).

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BEATRIZ PRIETO  
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June 4, 2005